APPENDIX E
PUMP CHARACTERISTICS
(READING A PUMP PERFORMANCE CURVE)

The characteristics of a given recirculation pump are described by its performance curve. This performance curve is described best by two sets of conditions. The typical pump performance curve is expressed graphically by a chart which illustrates how much water a given pump will deliver at each of several different conditions of resistance. The amount of resistance is expressed in pounds per square inch or feet of head at the vertical line of the chart to the left in the accompanying illustration. (See figure E-1.)

The amount of flow is expressed in gallons per minute (gal/min) at the horizontal base line of the chart. This pump curve chart describes a pump which a designer might choose to recirculate the 41,000 gallon pool used for illustration in appendix D, CALCULATION OF TURNOVER.

The desired 85 gal/min would be delivered by this pump when it reaches a total system resistance of 67 feet of head. When resistance to flow is only 35 feet of head, this same pump will deliver 125 gal/min. But if resistance increases to 80 feet of head the pump will deliver only 50 gal/min, and at 90 feet of head the pump will cease moving water altogether.

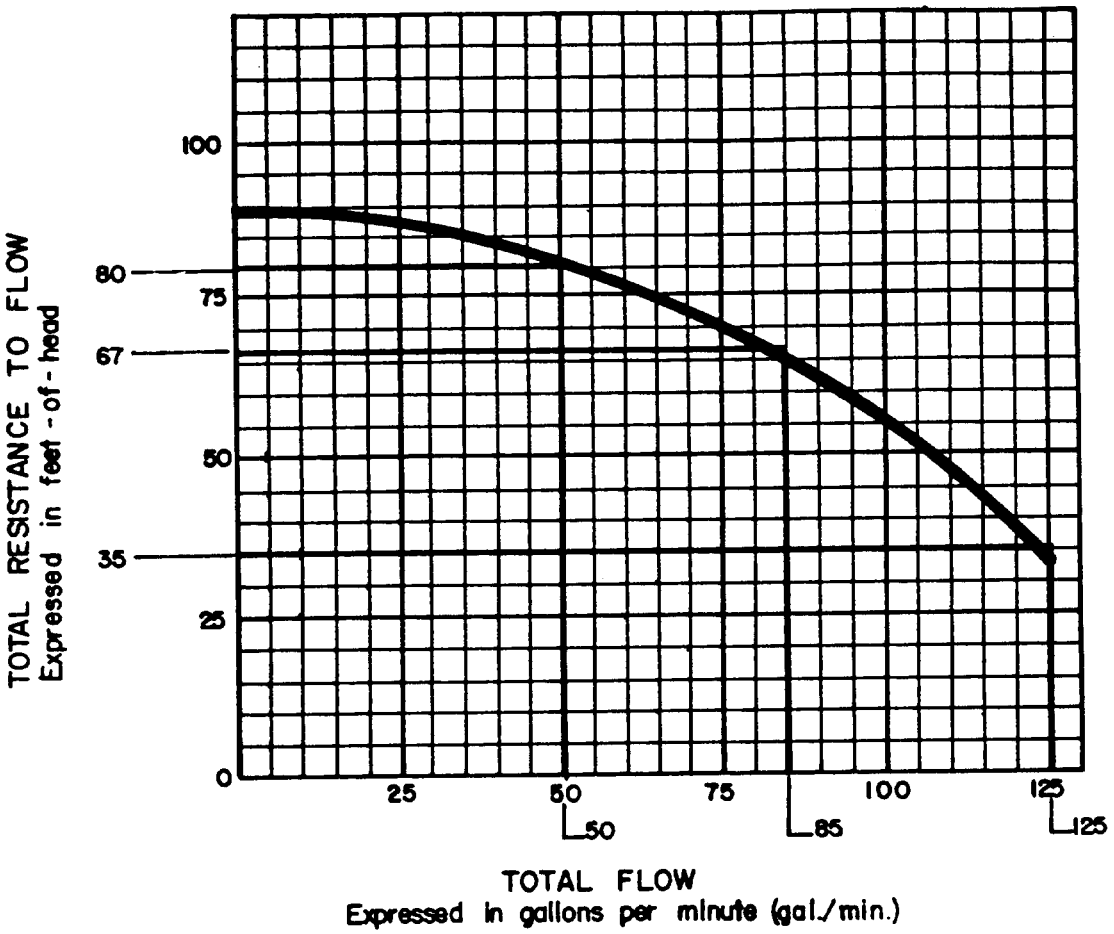

Figure E-1. Typical curve of 2 H.P. swimming pool pump